



05/20/04

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(MBHB Case No. 97,022-D1-C0)

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Application of:

)

Rubin, et al.

)

Examiner: To be assigned

Serial No. 10/685,737

)

Art Unit: 1641

Filed: October 15, 2003

)

Title: A System for Cell-Based Screening

)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

TRANSMITTAL LETTER

1. We are transmitting herewith the attached papers for the above-identified patent application:

- Transmittal Letter (1 Sheet);
- IDS and 1449 Form in compliance with the continuing duty of candor in 37 CFR § 1.56 (13 Sheets);
- Supplemental Information Disclosure Statement and 1449 Form (5 sheets);
- 6 cited references
- Return Receipt Postcard

2. With respect to fees:

- No fee required.

3. **GENERAL AUTHORIZATION TO CHARGE OR CREDIT FEES:** Please charge any additional fees or credit overpayment to Deposit Account No. **13-2490**. A duplicate copy of this sheet is enclosed.

4. **CERTIFICATE OF MAILING BY "EXPRESS MAIL" UNDER 37 CFR § 1.10:** The undersigned hereby certifies that this Transmittal Letter and the papers, as described hereinabove, are being deposited with the United States Postal Service with sufficient postage as "Express Mail Post Office to Addressee" in an envelope addressed to: Commissioner for Patents, Alexandria, VA 22313-1450, on this 19th day of May, 2004. Express Mail No. **EV334706095US**.

By:



David S. Harper
Reg. No. **42,636**



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 97,022-D1-CO)**

In application of:)
Rubin, et al.)
Serial No. 10/685,737)
Filed: October 15, 2003)
For: A System for Cell-Based Screening)
Group Art Unit: 1641
Examiner: To be assigned

INFORMATION DISCLOSURE STATEMENT

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Pursuant to 37 C.F.R. §1.98(d), copies of references numbered 1-70 are not provided herewith, since they were previously filed in the parent application.

Applicants do not believe any fee is due with this submission. If this belief be in error and the Patent Office determines that the fee prescribed in the relevant portion of 37 C.F.R. Section 1.97 is applicable, the undersigned attorney by his signature hereby authorizes any such fee to be debited from Deposit Account 13-2490.

This Information Disclosure Statement is being filed:

- within three months of the filing date of a national application; within three months of the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or before the mailing date of a first Office Action on the merits. 37 C.F.R. §1.97 (b)
- after three months of the filing date of a national application, or the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or after the mailing date of a first Office Action on the merits, but before the mailing date of a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), and includes (37 C.F.R. § 1.97 (c):
 - the Certification under 37 C.F.R. § 1.97(e) (see “Certification” below)

OR

- the fee of \$240 set forth in 37 C.F.R. § 1.17(p) (see “Fees” below).
- after a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), but before, or simultaneously with, the payment of the issue fee, and includes the Certification under 37 C.F.R. § 1.97(e) (see “Certification” below), and the Petition Fee set forth in 37 C.F.R. § 1.17(i) (see “Fees” and “Method of Payment of Fees” below). Applicants hereby petitions for consideration of the Information Disclosure Statement submitted herewith and the accompanying references in examination of the subject patent application.

CERTIFICATION

- The **undersigned** hereby certifies that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of the Information Disclosure Statement.
- The **undersigned** hereby certifies that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

FEES

No fee is owed by the applicant(s).
 The **IDS Fee of \$240.00** under 37 C.F.R. § 1.17(p) is enclosed herewith.
 The **Petition Fee of \$130.00** set forth in 37 C.F.R. § 1.17(i) is enclosed herewith.

METHOD OF PAYMENT OF FEES

Attached is a check in the amount of \$ _____.
 Charge Deposit Account No. 13-2490 in the amount of \$ _____. (A duplicate copy of this communication is enclosed for that purpose.)

Please charge any underpayment or credit any overpayment in connection with this communication to Deposit Account No. 13-2490. A duplicate copy of this communication is enclosed for this purpose.

CERTIFICATE OF MAILING VIA EXPRESS MAIL DELIVERY under 37 C.F.R. § 1.10. I hereby certify that the attached paper of fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on this 19th day of May, 2004. Express Mail No. EV334706095US.

Date: 5/19/04

Respectfully submitted,



David S. Harper
Registration No. 42,636

Telephone: 312-913-0001
Facsimile: 312-913-0002

McDonnell Boehnen Hulbert & Berghoff
300 South Wacker Drive
Chicago, IL 60606



U.S. Patent Documents:

1. U.S. Patent No. 5,670,113, Issued on September 23, 1997.
2. U.S. Patent No. 5,732,150, Issued on March 24, 1998.
3. U.S. Patent No. 5,790,710, Issued on August 4, 1998.
4. U.S. Patent No. 5,885,840, Issued on March 23, 1999.
5. U.S. Patent No. 5,072,382, Issued on December 10, 1991.
6. U.S. Patent No. 5,107,422, Issued on April 21, 1992.
7. U.S. Patent No. 4,647,531, Issued on March 3, 1987.
8. U.S. Patent No. 5,919,646, Issued on July 6, 1999.
9. U.S. Patent No. 5,891,646, Issued on April 6, 1999.
10. U.S. Patent No. 6,004,808, Issued on December 21, 1999.

Foreign Documents:

11. Aurora Biosciences Corporation, International Published Application No. WO 98/13353, Published April 2, 1998.
12. Aurora Biosciences Corporation, International Published Application No. WO 97/48820, Published December 24, 1997.
13. Htun, Han, et al., International Published Application No. WO 97/20931, Published on June 12, 1997.
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16. Keith Olson, et al. International Published Application No. WO 00/70342, Published on November 23, 2000.
17. Kenneth Giuliano, et al., International Published Application No. WO 00/50872, Published on August 31, 2000.
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20. Keith Olson, et al., PCT International Published Application No. WO 00/26408, Published on May 11, 2000.
21. Soeren Tullin, et al., PCT International Published Application No. WO 98/45704, Published October 15, 1998.
22. Kenneth Giuliano, et al., PCT International Published Application No. WO 97/45730, Published on December 4, 1997.

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53. J. Kolega, et al., (1993), *Bioimaging*, 1: pp. 136-150.

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62. Tarasova, et al., (1997), The Journal of Biological Chemistry, "Visualization of G Protein-coupled Receptor Trafficking with the Aid of the Green Fluorescent Protein", Vol. 272 No. 23, pp. 14817-14824.

63. Oancea, et al., (1998), The Journal of Cell Biology, "Green Fluorescent Protein (GFP)-tagged Cysteine-rich Domains from Protein Kinase C as Fluorescent Indicators for Diacylglycerol Signaling in Living Cells", Vol. 140 No. 3, pp. 485-498.

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66. Dow, et al., (1996), Cytometry, "Automatic Multiparameter Fluorescence Imaging for Determining Lymphocyte Phenotype and Activation Status in Melanoma Tissue Sections", Vol: 25, pp. 71-81.
67. Giuliano, et al., (1997), Journal of Biomolecular Screening, "High-Content Screening: A New Approach to Easing Key Bottlenecks in the Drug Discovery Process", Vol: 2(4), pp. 249-259.
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69. Ranefall, et al., (1997), Analytical Cellular Pathology, "A New Method for Segmentation of Colour Images Applied to Immunohistochemically Stained Cell Nuclei", Vol: 15, pp. 145-156.
70. Xu-Van, et al., (1994), Microscopy Research and Technique, "Automated Image Analyzing System for the Quantitative Study of Living Cells in Culture", Vol: 28, pp. 440-447.

Co-pending applications

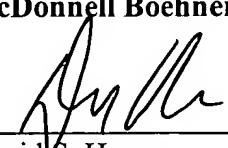
The Applicants hereby notify the Examiner of the following commonly owned co-pending applications:

10/430,534 (Filed May 6, 2003)
09/718,770 (Filed November 22, 2000)
09/721,168 (Filed November 22, 2000)
10/411,635 (Filed April 11, 2003)
09/723,256 (Filed November 27, 2000)
10/686,161 (Filed October 15, 2003)
09/598,347 (Filed June 21, 2000)

Respectfully submitted,
McDonnell Boehnen Hulbert & Berghoff

Date: 5/19/04

By:



David S. Harper
Reg. No. 42,636



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 97,022-D1-CO)

SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

**Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Copies of the references cited below are enclosed. These references are also listed on the enclosed PTO Form 1449.

In the judgment of the undersigned, portions of the listed references may be material to the Examiner's consideration of the presently pending claims. However, the references have not been reviewed in sufficient detail to make any other representation and, in particular, no representation is intended as to the relative relevance between references, whether cited in this or prior statements. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. Section 102 or Section 103.

This Information Disclosure Statement is being filed:

within three months of the filing date of a national application; within three months of the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or before the mailing date of a first Office Action on the merits. 37 C.F.R. §1.97 (b)

after three months of the filing date of a national application, or the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or after the mailing date of a first Office Action on the merits, but before the mailing date of a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), and includes (37 C.F.R. § 1.97 (c)):

the Certification under 37 C.F.R. § 1.97(e) (see "Certification" below)

OR

the fee of \$180.00 set forth in 37 C.F.R. § 1.17(p) (see "Fees" below).

after a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), but before, or simultaneously with, the payment of the issue fee, and includes the Certification under 37 C.F.R. § 1.97(e) (see "Certification" below), and the Petition Fee set forth in 37 C.F.R. § 1.17(i) (see "Fees" and "Method of Payment of Fees" below). Applicants hereby petitions for consideration of the Information Disclosure Statement submitted herewith and the accompanying references in examination of the subject patent application.

CERTIFICATION

The **undersigned** hereby certifies that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of the Information Disclosure Statement.

The **undersigned** hereby certifies that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

McDonnell, Boehnen, Hulbert & Berghoff
300 S. Wacker Drive, Suite 3200
Chicago, IL 60606
312-913-0001

FEES

No fee is owed by the applicant(s).
 The IDS Fee of \$ _____ under 37 C.F.R. § 1.17(p) is enclosed herewith.

METHOD OF PAYMENT OF FEES

Attached is a check in the amount of \$ _____.
 Charge Deposit Account No. 13-2490 in the amount of \$ _____. (A duplicate copy of this communication is enclosed for that purpose.)

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Respectfully submitted,

Date: 5/19/04



David S. Harper
Registration No. 42,636

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McDonnell Boehnen Hulbert & Berghoff
300 South Wacker Drive
Chicago, IL 60606

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300 S. Wacker Drive, Suite 3200
Chicago, IL 60606
312-913-0001



U.S. Patent References:

1. R. Terry Dunlay, et al., U.S. Patent No. 6,727,071, Issued on April 27, 2004.
2. R. Terry Dunlay, et al., U.S. Patent No. 6,620,591, Issued on September 16, 2003.
3. Kenneth Giuliano, et al., U.S. Patent No. 6,416,959, Issued on July 9, 2002.
4. R. Terry Dunlay, et al., U.S. Patent No. 5,989,835, Issued on November 23, 1999.
5. R. Terry Dunlay, et al., U.S. Patent No. 6,573,039, Issued on June 3, 2003.
6. R. Terry Dunlay, et al., U.S. Patent No. 6,671,624, Issued on December 30, 2003.

Date: 5/19/04

By:

Respectfully Submitted,



David Harper
Reg. No. 42,636
**McDonnell, Boehnen
Hulbert & Berghoff**
300 South Wacker Drive
Chicago, IL 60606

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312-913-0001

Form PTO-1449

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

Serial No.

97,022-D1-CO

10/685,737

SUPPLEMENTAL INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

MAY 19 2004

Applicant: Rubin, et al.

Filing Date: October 15, 2003

Group: 1641

| U. S. PATENT DOCUMENTS | | | | | | | |
|------------------------|---|-----------------|----------|------------------|--------|----------|----------------------------|
| Examiner Initials | | Document Number | Date | Name | Class | Subclass | Filing Date if Appropriate |
| | 1 | 6,727,071 | 4-27-04 | Dunlay, et al. | 33/53 | 435/7.21 | 2-27-98 |
| | 2 | 6,620,591 | 7-16-03 | Dunlay, et al. | 33/533 | 435/7.2 | 4-16-99 |
| | 3 | 6,416,959 | 7-9-02 | Giuliano, et al. | 33/533 | 435/7.2 | 2-25-00 |
| | 4 | 5,989,835 | 11-23-99 | Dunlay, et al. | 33/533 | 435/7.2 | 2-27-97 |
| | 5 | 6,573,039 | 6-3-03 | Dunlay, et al. | 33/53 | 435/4 | 8-29-00 |
| | 6 | 6,671,624 | 12-30-03 | Dunlay, et al. | 33/48 | 702/19 | 11-27-00 |

FOREIGN PATENT DOCUMENTS

| | | Document Number | Date | Country | Class | Subclass | Translation Yes No |
|--|--|-----------------|------|---------|-------|----------|----------------------------|
| | | | | | | | |
| | | | | | | | |

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

Form PTO-1449

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

Serial No.

97,022-D1-CO

10/685,737

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Applicant: Rubin, et al.

Filing Date: October 15, 2003

Group: 1641

U. S. PATENT DOCUMENTS

| Examiner Initials | | Document Number | Date | Name | Class | Subclass | Filing Date if Appropriate |
|-------------------|----|-----------------|----------|-------------------|-------|----------|----------------------------|
| | 1 | 5,670,113 | 9-23-97 | Akong, et al. | | | 12-13-92 |
| | 2 | 5,732,150 | 3-24-98 | Zhou, et al. | | | 9-19-95 |
| | 3 | 5,790,710 | 8-4-98 | Price, et al. | | | 1-17-97 |
| | 4 | 5,885,840 | 3-23-99 | Kamentsky, et al. | | | 2-10-97 |
| | 5 | 5,072,382 | 12-10-91 | Kamentsky, et al. | | | 10-2-89 |
| | 6 | 5,107,422 | 4-21-92 | Kamentsky, et al. | | | 9-14-90 |
| | 7 | 4,647,531 | 3-3-87 | Kamentsky, et al. | | | 2-6-84 |
| | 8 | 5,919,646 | 7-6-99 | Okun, et al. | | | 8-1-97 |
| | 9 | 5,891,646 | 4-6-99 | Barak, et al. | | | 6-5-97 |
| | 10 | 6,004,808 | 12-21-99 | Negulescu, et al. | | | 6-19-97 |

FOREIGN PATENT DOCUMENTS

| | | Document Number | Date | Country | Class | Subclass | Translation Yes No |
|--|----|-----------------|----------|---------|-------|----------|-----------------------|
| | 11 | WO 98/13353 | 4/2/98 | PCT | | | X |
| | 12 | WO 97/48820 | 12/24/97 | PCT | | | X |
| | 13 | WO 97/20931 | 6/12/97 | PCT | | | X |
| | 14 | WO 98/10287 | 3/12/98 | PCT | | | X |
| | 15 | WO 98/38490 | 9/3/98 | PCT | | | X |
| | 16 | WO 00/70342 | 11/23/00 | PCT | | | X |
| | 17 | WO 00/50872 | 8/31/00 | PCT | | | X |
| | 18 | WO 00/17643 | 3/30/00 | PCT | | | X |
| | 19 | WO 0/03246 | 1/20/00 | PCT | | | X |
| | 20 | WO 00/26408 | 5/11/00 | PCT | | | X |
| | 21 | WO 98/45704 | 10/15/98 | PCT | | | X |
| | 22 | WO 97/45730 | 12/4/97 | PCT | | | X |

Examiner

Date Considered

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with any communication.

| | | | |
|--|--|----------------------------------|--------------------------|
| Form PTO-1449 | U.S. Department of Commerce Patent and Trademark Office | Atty. Docket No. 97,022-D1-CO | Serial No. 10/685,737 |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT | | Applicant: Rubin, et al. | |
| | | Filing Date: October 15, 2003 | Group: 1641 |

OTHER DOCUMENTS - Including Author, Title, Date, Pertinent Pages, Etc.

| | |
|----|---|
| 23 | Cosima T. Baldari, et al., (1998), <i>Biologicals</i> , 26(1): pp. 1-5. |
| 24 | David Baldwin Jr., et al., (1980), <i>Proc. Natl. Acad. Sci.</i> , 77(10): pp. 5975-5978. |
| 25 | Andrew B. Tobin, et al., (1992), <i>Mol. Pharmacol.</i> , 42: pp. 1042-1048. |
| 26 | J. Baumgold, et al., (1989), <i>Neuropharmacology</i> , 28(11): pp. 1253-1261. |
| 27 | Shigenobu Kanba, et al., (1990), <i>Biochemical Pharmacology</i> , 40(5): pp. 1005-1014. |
| 28 | Steven S. Yu, et al., (1993), <i>The Journal of Biological Chemistry</i> , 268(1): pp. 337-341. |
| 29 | Larry S. Barak, et al., (1994), <i>The Journal of Biological Chemistry</i> , 269(4): pp. 2790-2795. |
| 30 | Kathleen M. Krueger, et al., (1997), <i>The Journal of Biological Chemistry</i> , 272(1): pp. 5-8. |
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